

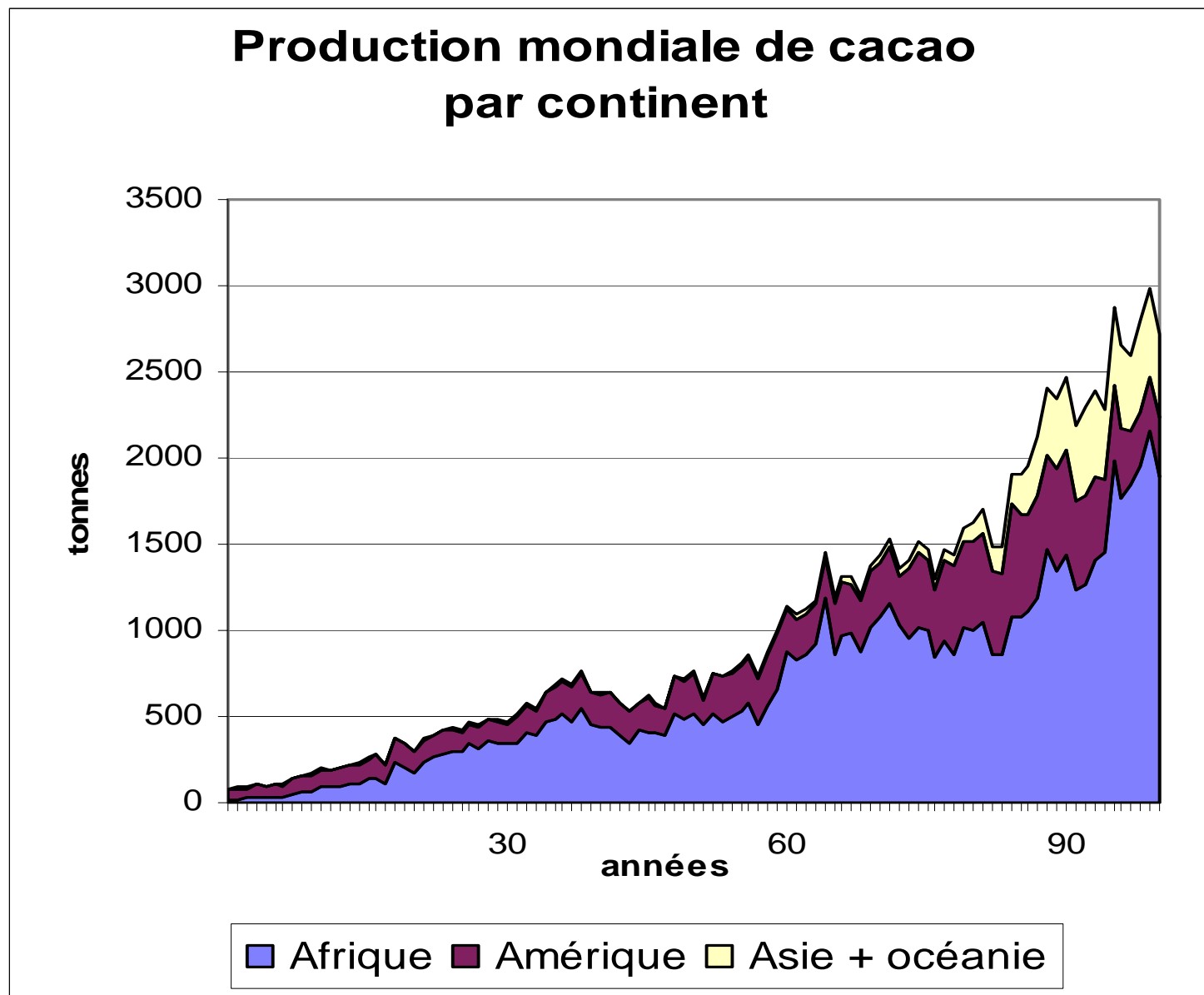


# Cocoa, a tree of change rather than a change of tree

International Symposium “Cocoa, a tree of change”  
Kumasi 28-29 October 2008

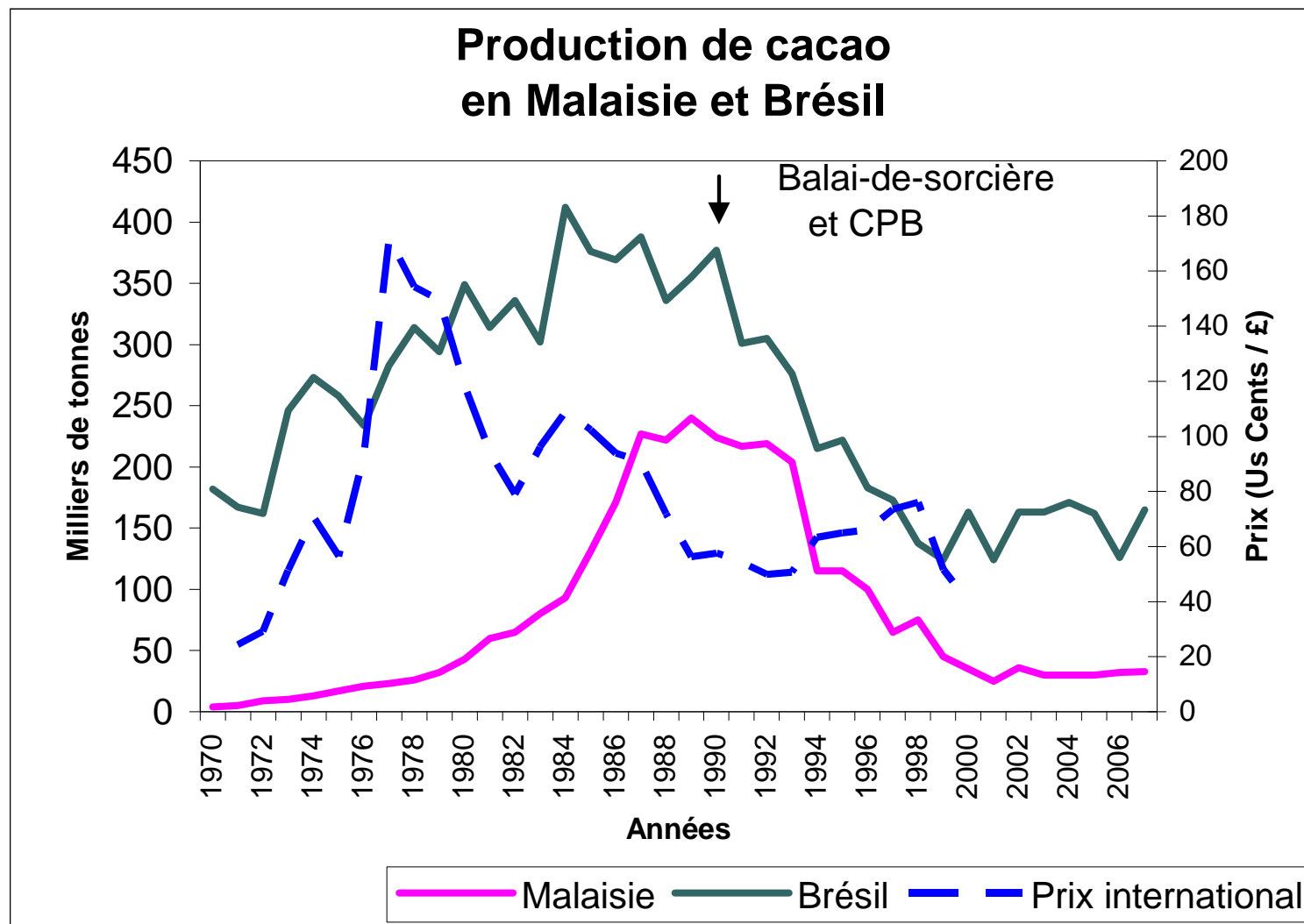
**Francois Ruf**  
**CIRAD**

The starting point:  
African hegemony on the cocoa sector:  
until when?



# « Cacaoculture de grands propriétaires » : seulement efficace quand les prix sont élevés

‘A country has to be killed’..It will not be Malaysia’ (1990)





1.

# From Boom to Bust.

## From wealth to risks of chaos

Competitiveness between producers, countries, regions, is not 'static',

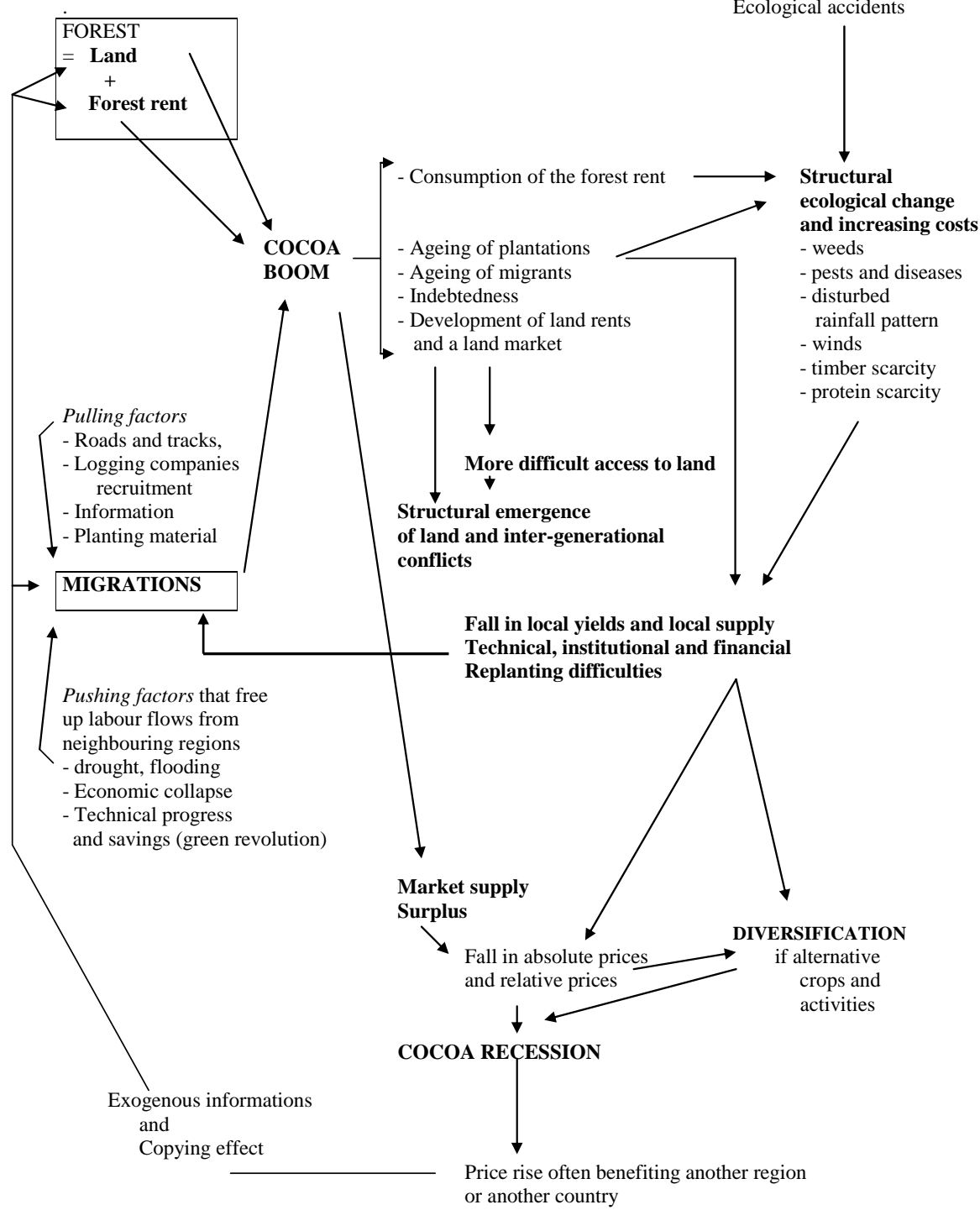
- neither in terms of production
- or quality (showcase of Southern Philippines in 1990)  
(showcase of Côte d'Ivoire in the 1990s and 2000s)

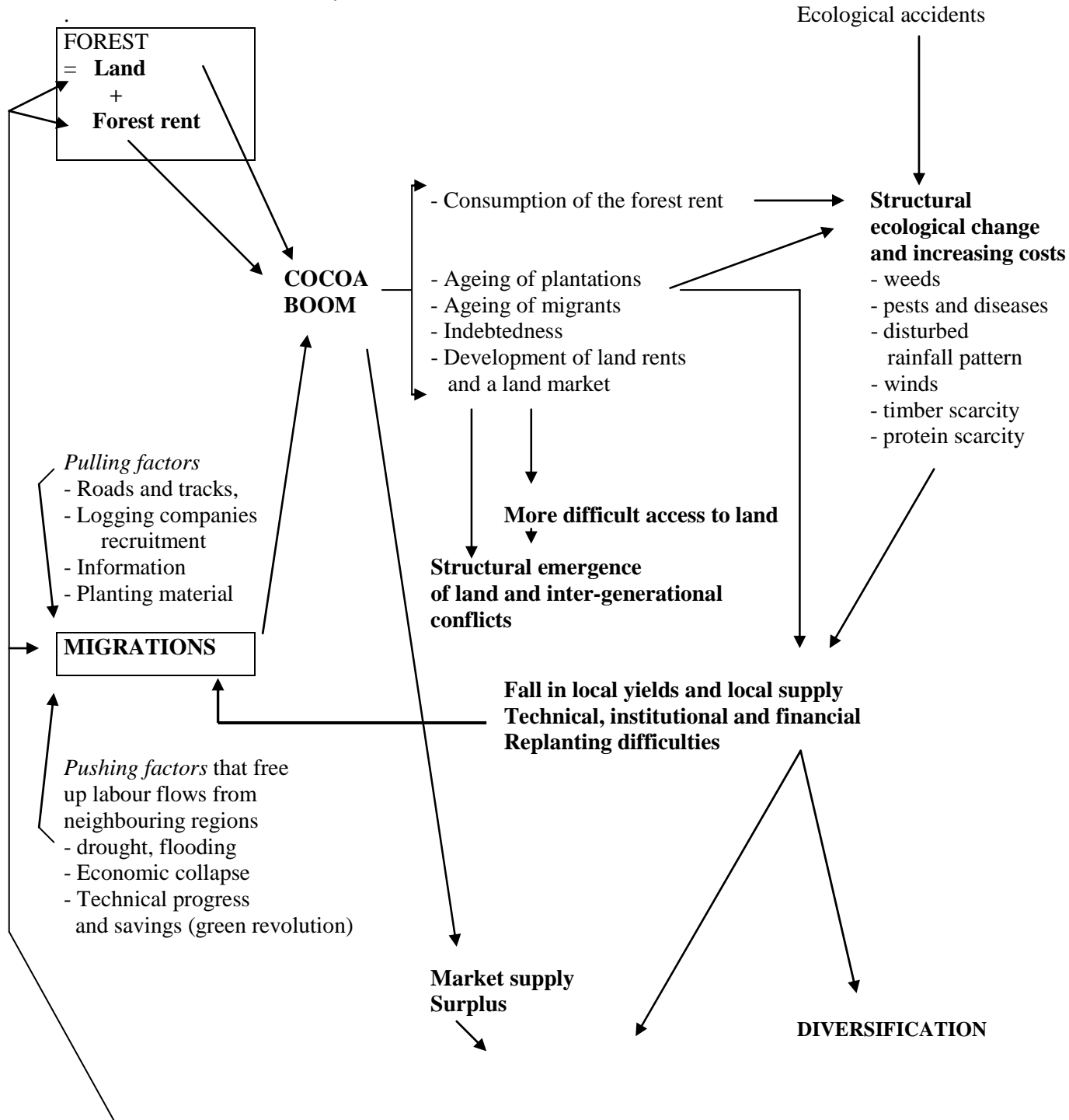
It must be approached in a dynamic perspective

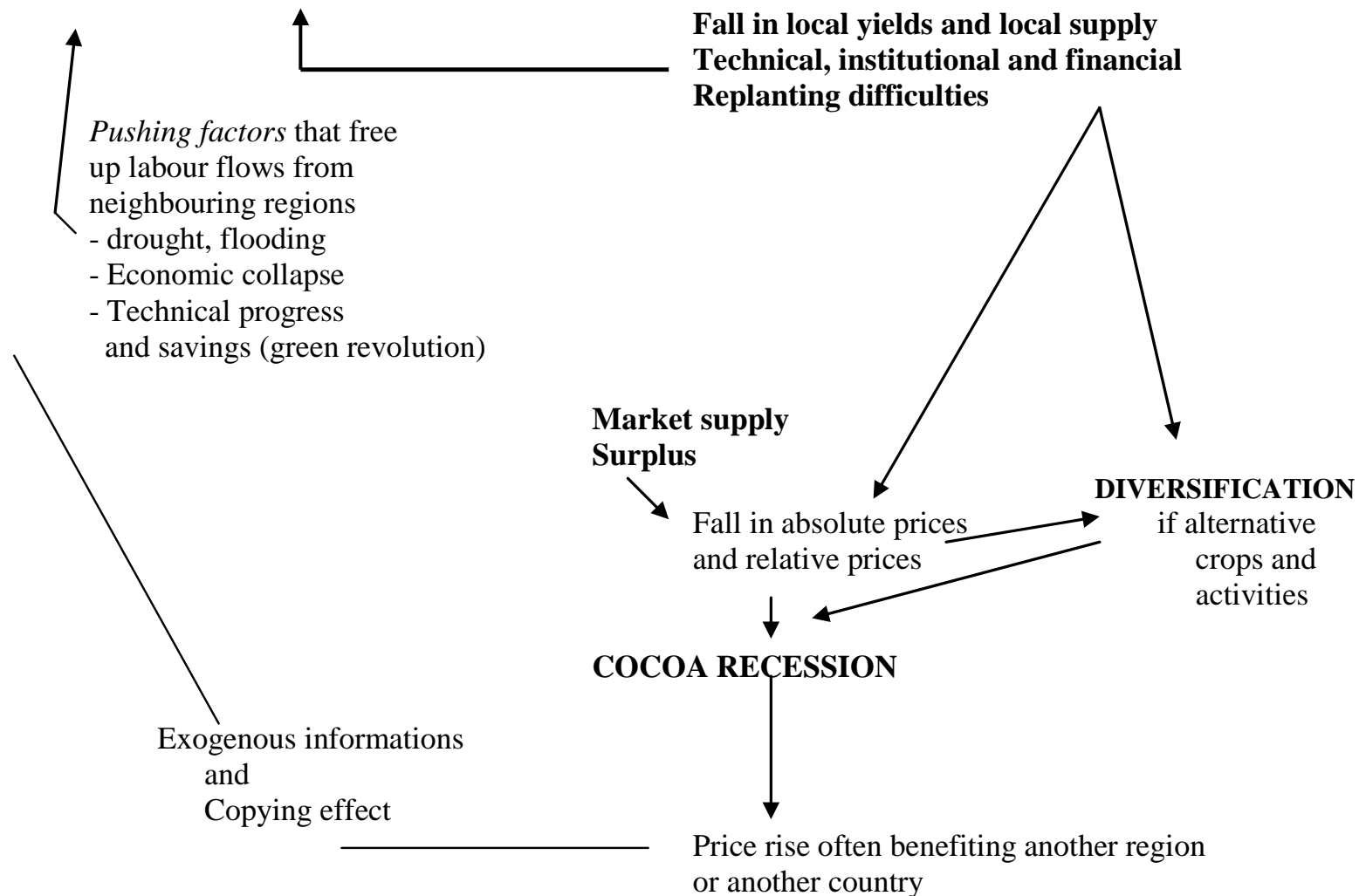
A model,

- as a tool to understand this dynamic  
of competitiveness
- putting cocoa at the crossroads of economic,  
ecological, institutional and political changes





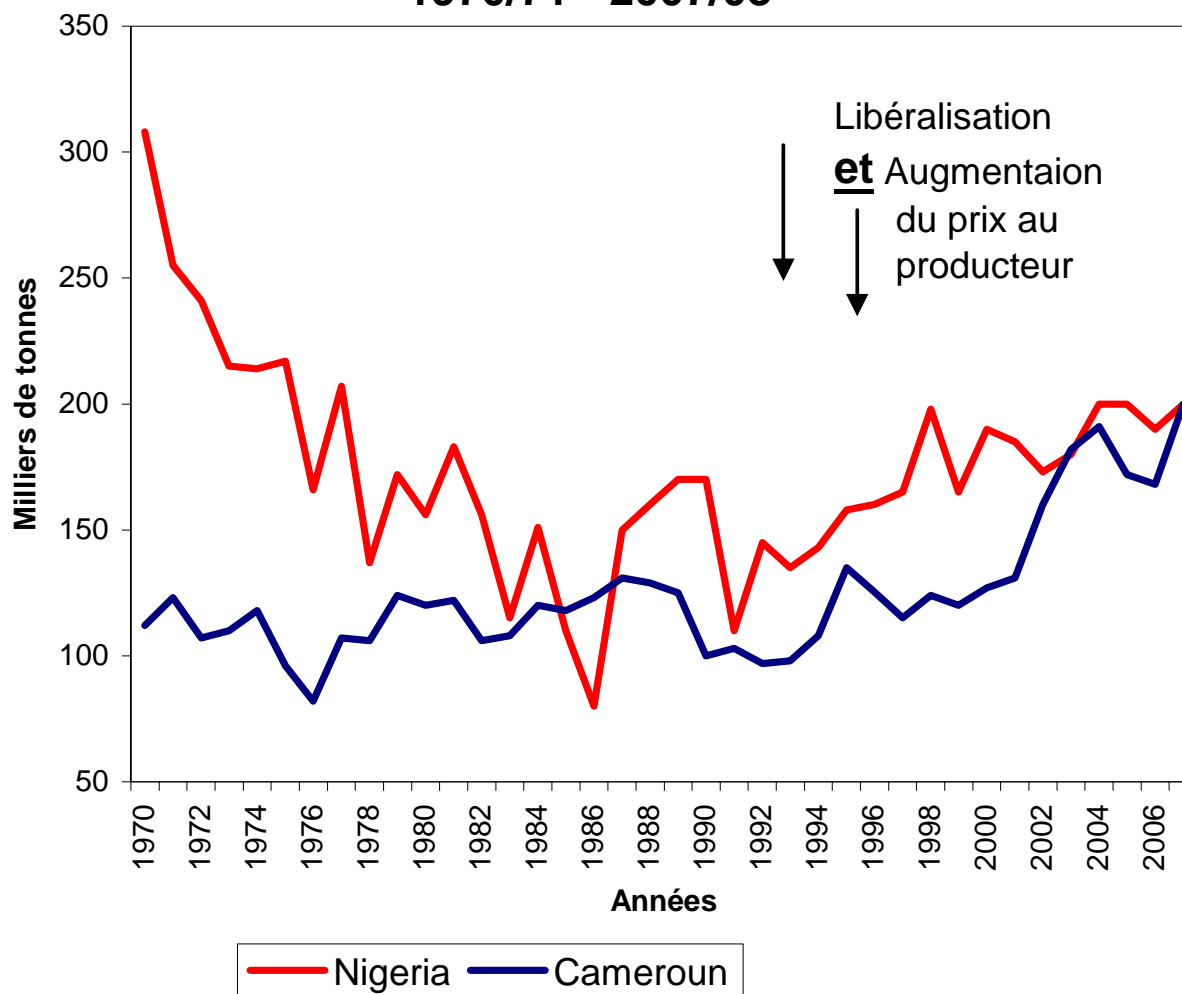




## 2. Illustration of economic changes

### Impact of prices and revenues on competitiveness

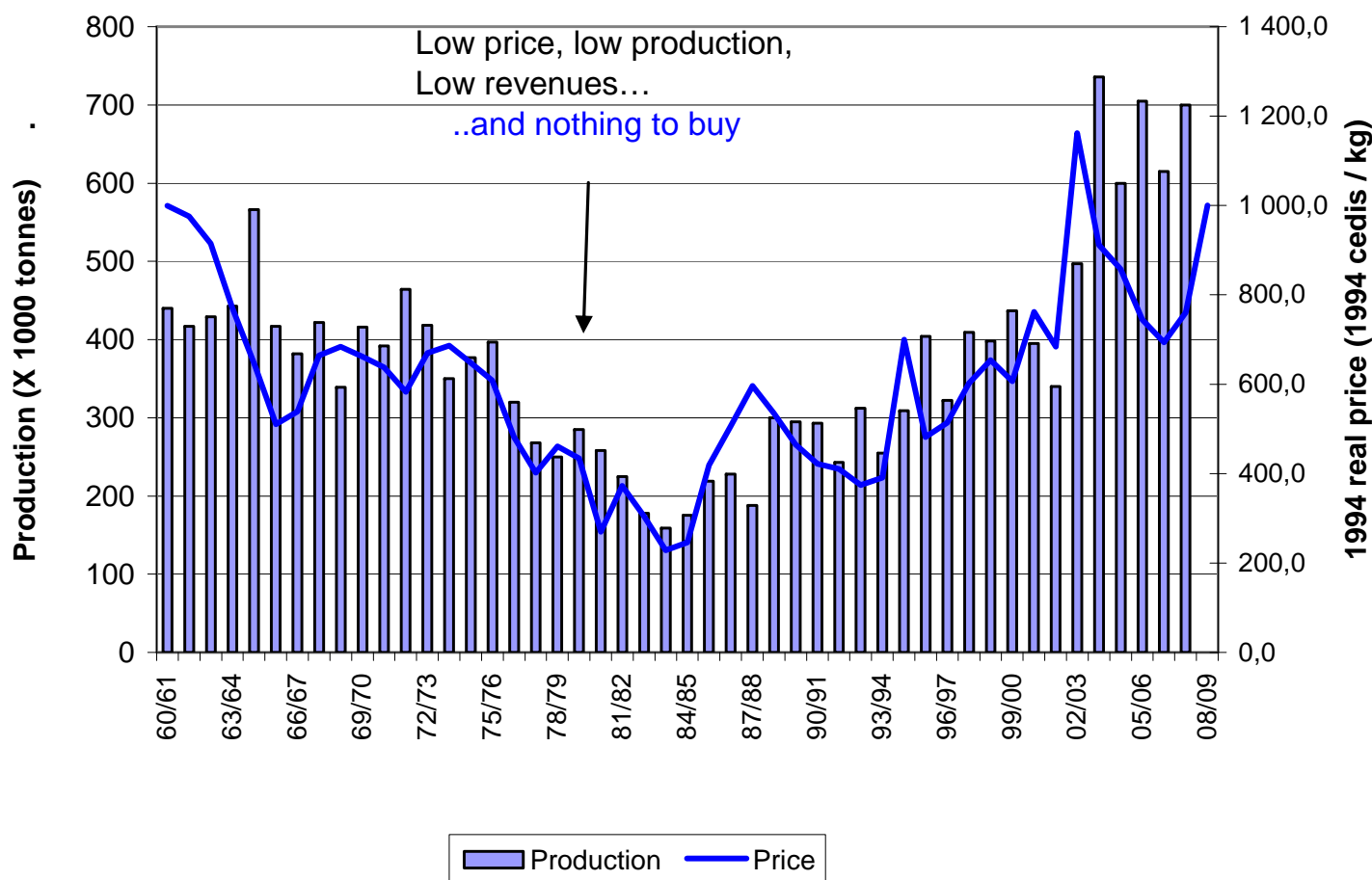
## Production de cacao au Nigeria et Cameroun 1970/71 - 2007/08



# Ghana: 1990s: also an efficient partial liberalization

## 1970s: a way about how to kill an industry

Cocoa. Production and real producer price in Ghana.  
1960-2008



Despite some decisive improvements, the daily life and labour productivity of coca farmers remains relatively poor



17/11/2007 7:26 pm











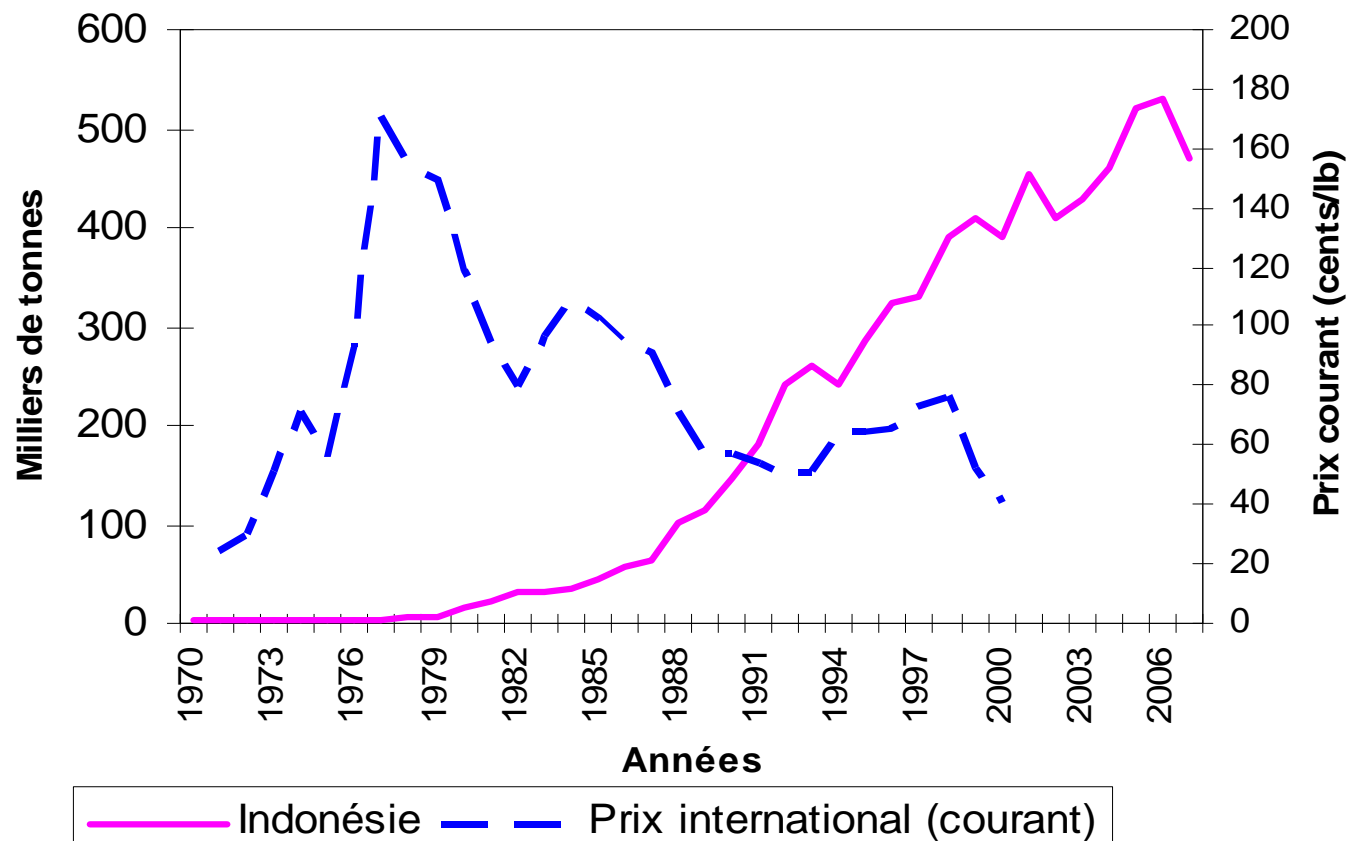
# Producer Price and Purchasing power

## A major trump for Southeast Asian producers



En interaction avec tous les facteurs de prix, de politique monétaire, de politique de non-taxation, de disponibilité de forêts, de migrations massives, cette traduction en réel boum du pouvoir d'achat a certainement joué un rôle clef dans le boum cacao de Sulawesi

## Le boum cacao de l'Indonésie Sulawesi, relayé par les autres îles? 1970-2007

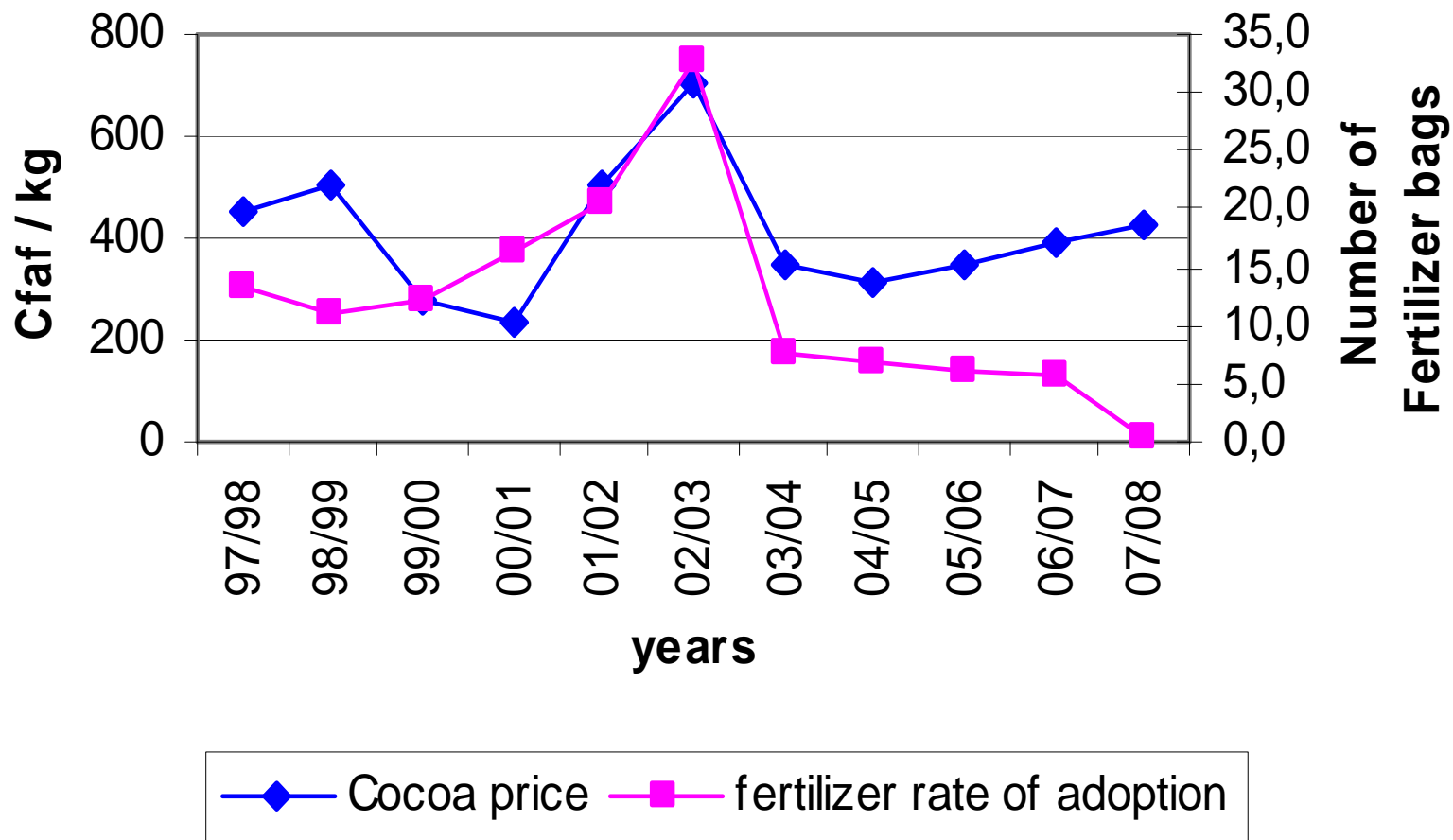


## Purchasing power of cocoa in the three main producing countries in early 2008

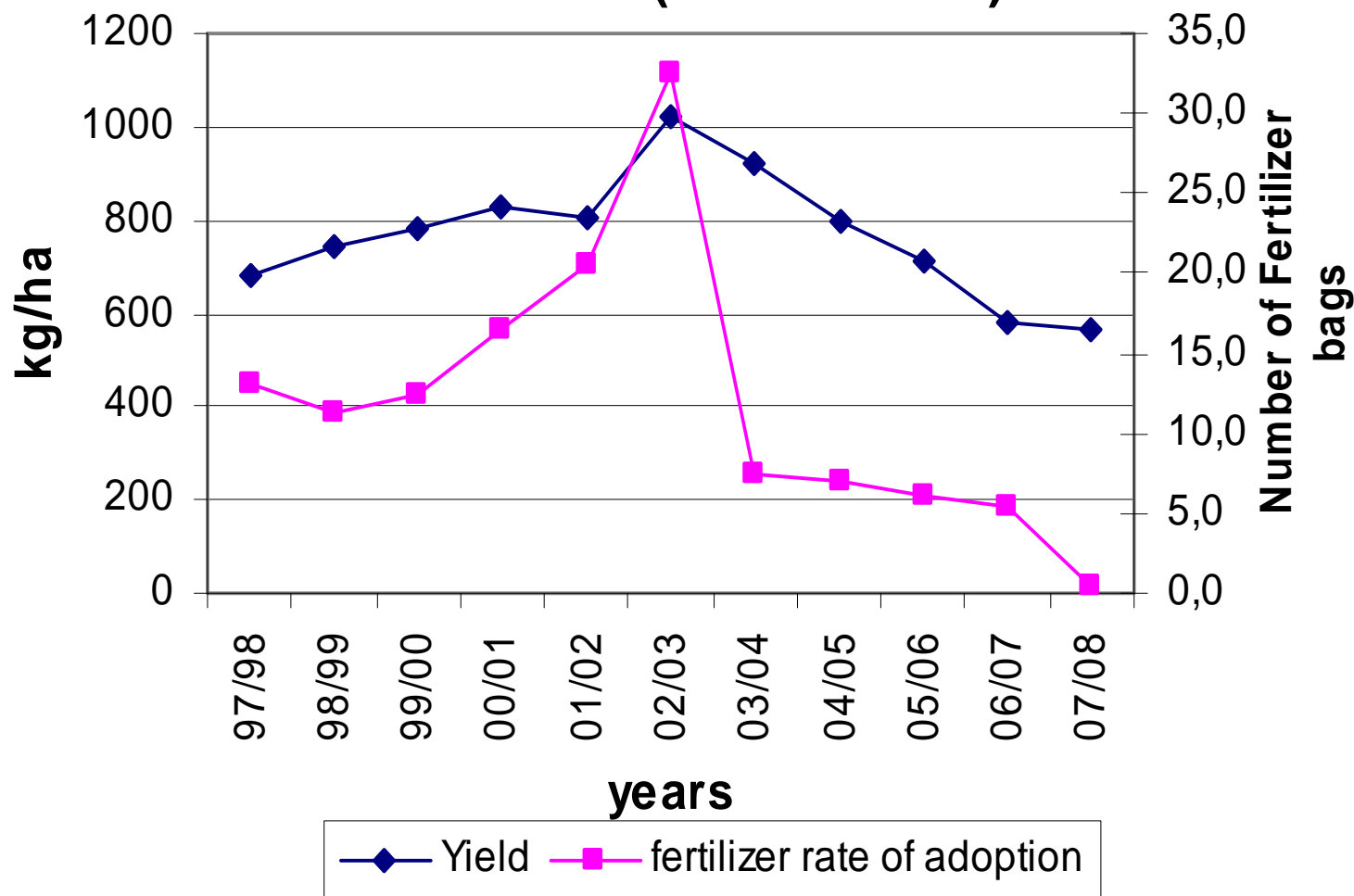
	How many kg of rice can be bought by one kg of cocoa?	How many kg of cocoa are needed to buy one 100 cc motorcycle?	How many kg of cocoa are needed to buy one fertilizer bag
Indonesia	4,2	800	8
Ghana	1,5	2900	14
Côte d'Ivoire	1,1	5500	52

Sources: survey Ruf (CIRAD)

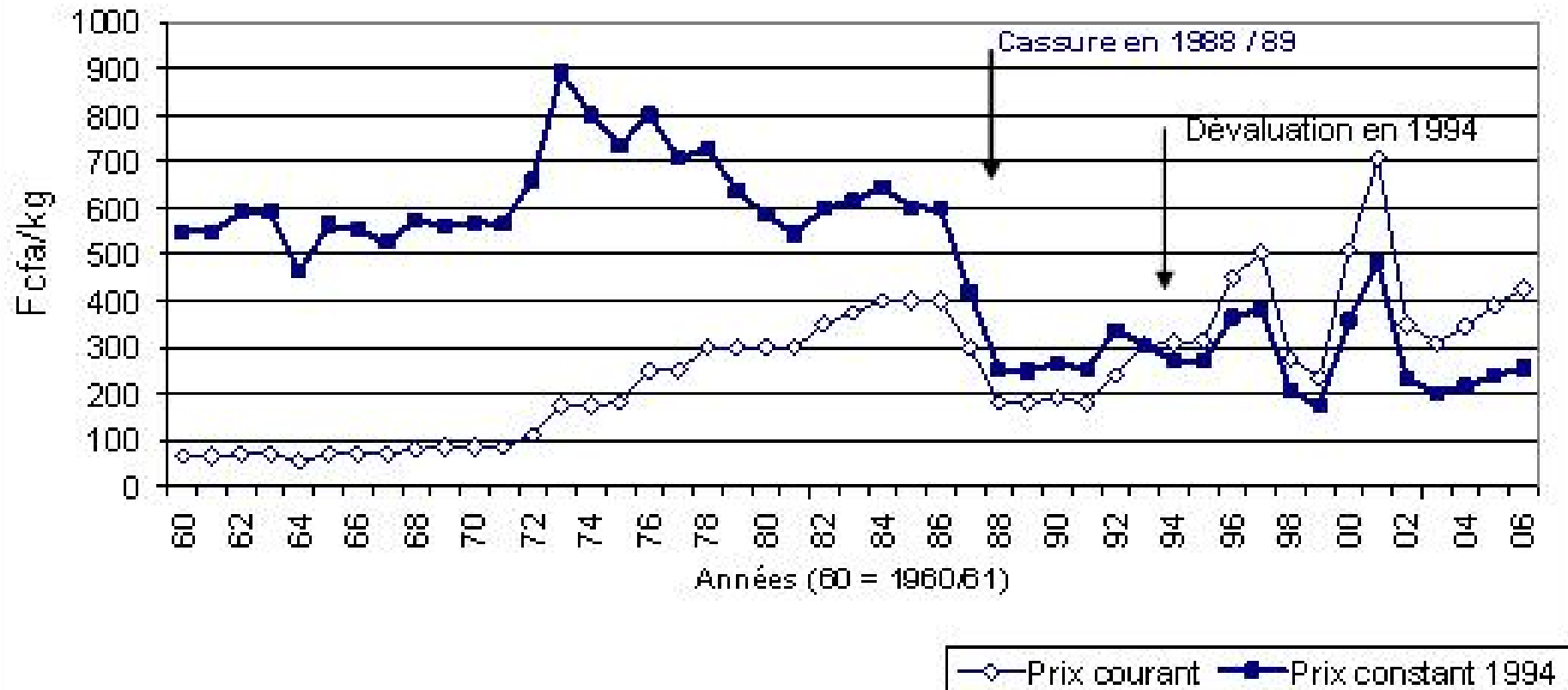
## Fertilizer adoption and Cocoa price around Soubré (Côte d'Ivoire)



## Yield per hectare and Fertilizer adoption around Soubré (Côte d'Ivoire)



## Prix du cacao au producteur en Côte d'Ivoire 1960 à 2007



## Conjonction des cycles de vie de la plantation et du planteur

« Notre papa est malade de la prostate il lui faut 1.300.000 F pour son opération. On nous demande 300.000F pour les premiers soins pour le sauver. A cause **des mortalités des cacaoyers** et du **mauvais prix du cacao**, on a rien envoyé ».

Ce planteur avait eu le courage de quitter son village et migrer vers les forêts du sud, pour planter le cacao et contribuer à la richesse du pays. 30 ans plus tard, il est trahit par le cacao et le prix du cacao.

- il n'y a plus d'argent pour fertiliser les cacaoyères,
- il n'y a plus d'argent pour payer l'hôpital.

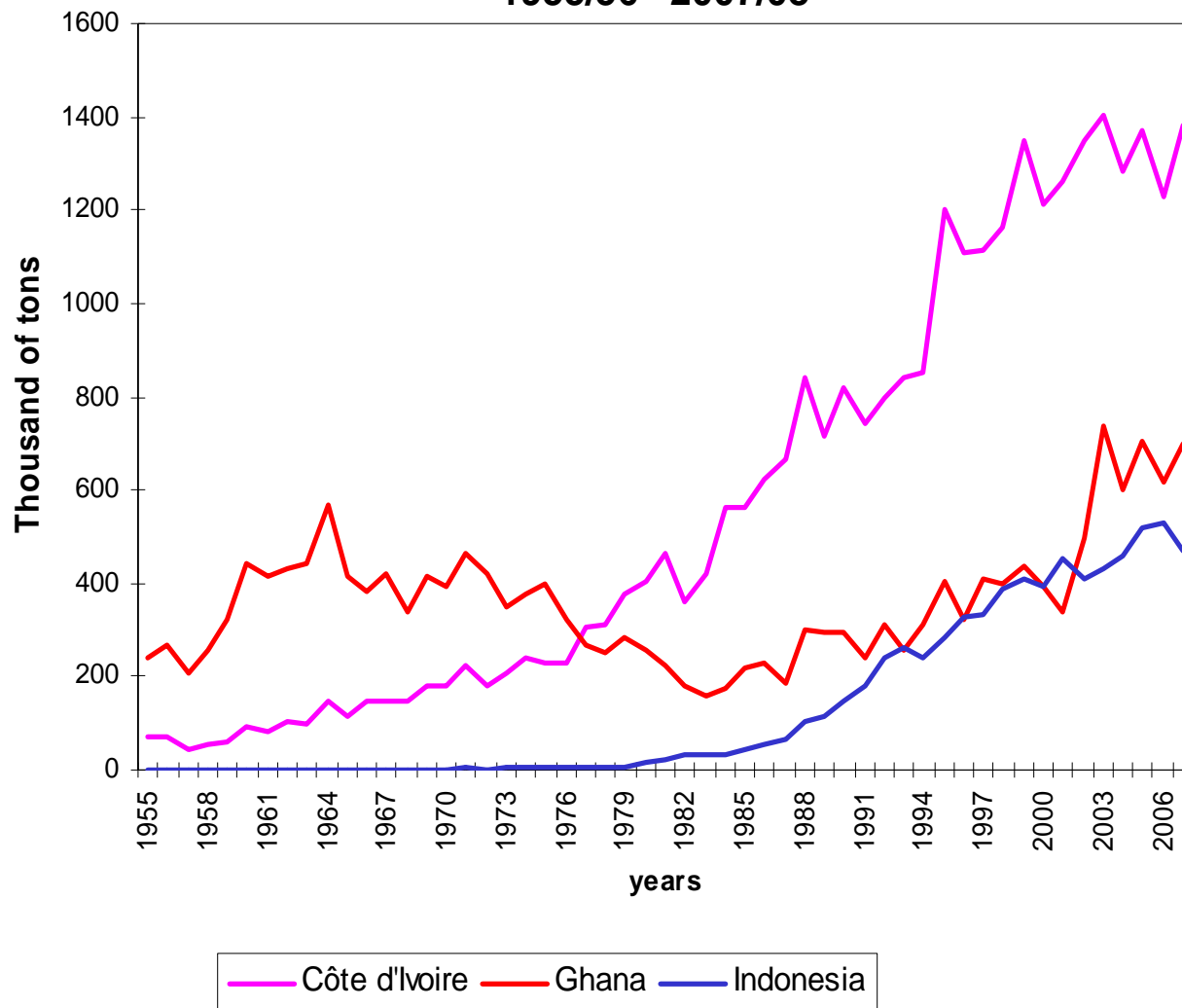
Faute de pouvoir se « soigner mutuellement »,  
le planteur et sa plantation :  
tombent malades ensemble et meurent ensemble.



# Cocoa Production per Country

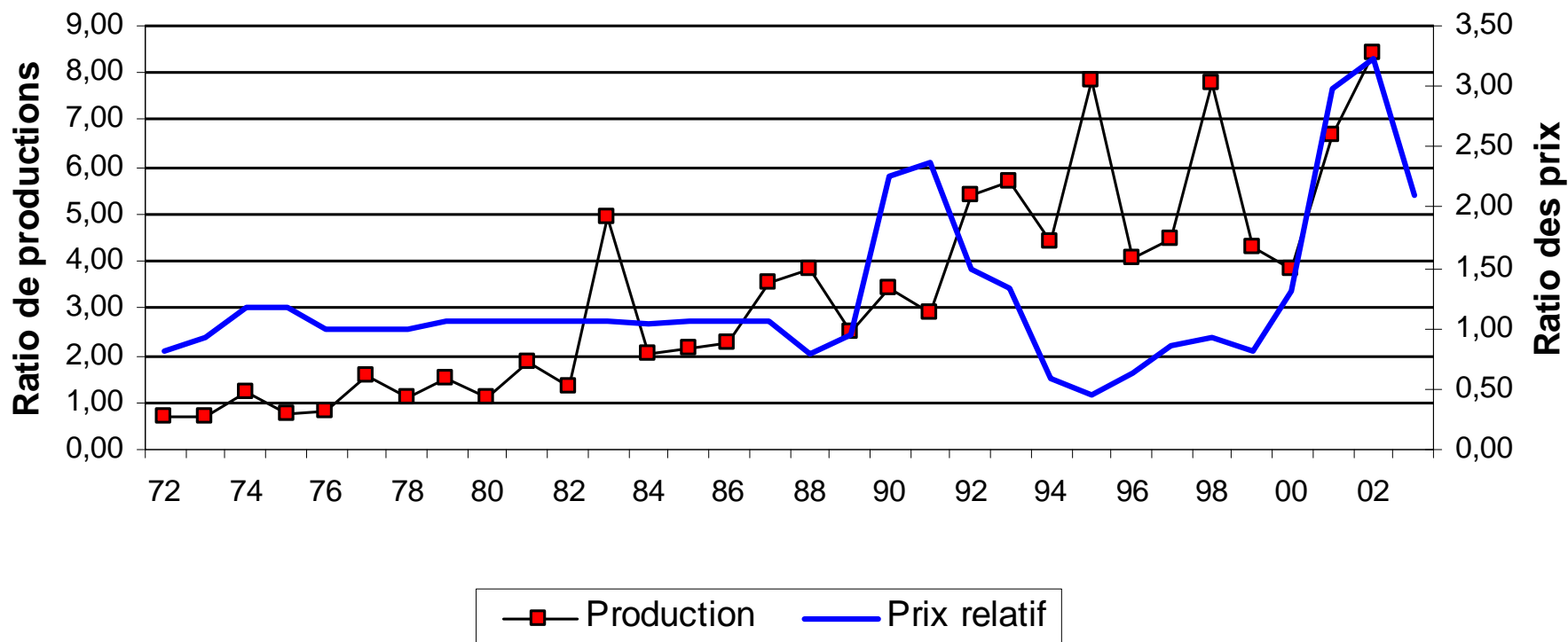
## Côte d'Ivoire, Ghana, Indonesia

### 1955/56 - 2007/08



One of the explanation of the cocoa resilience in Côte d'Ivoire was the worsening itutaion of the coffee sector

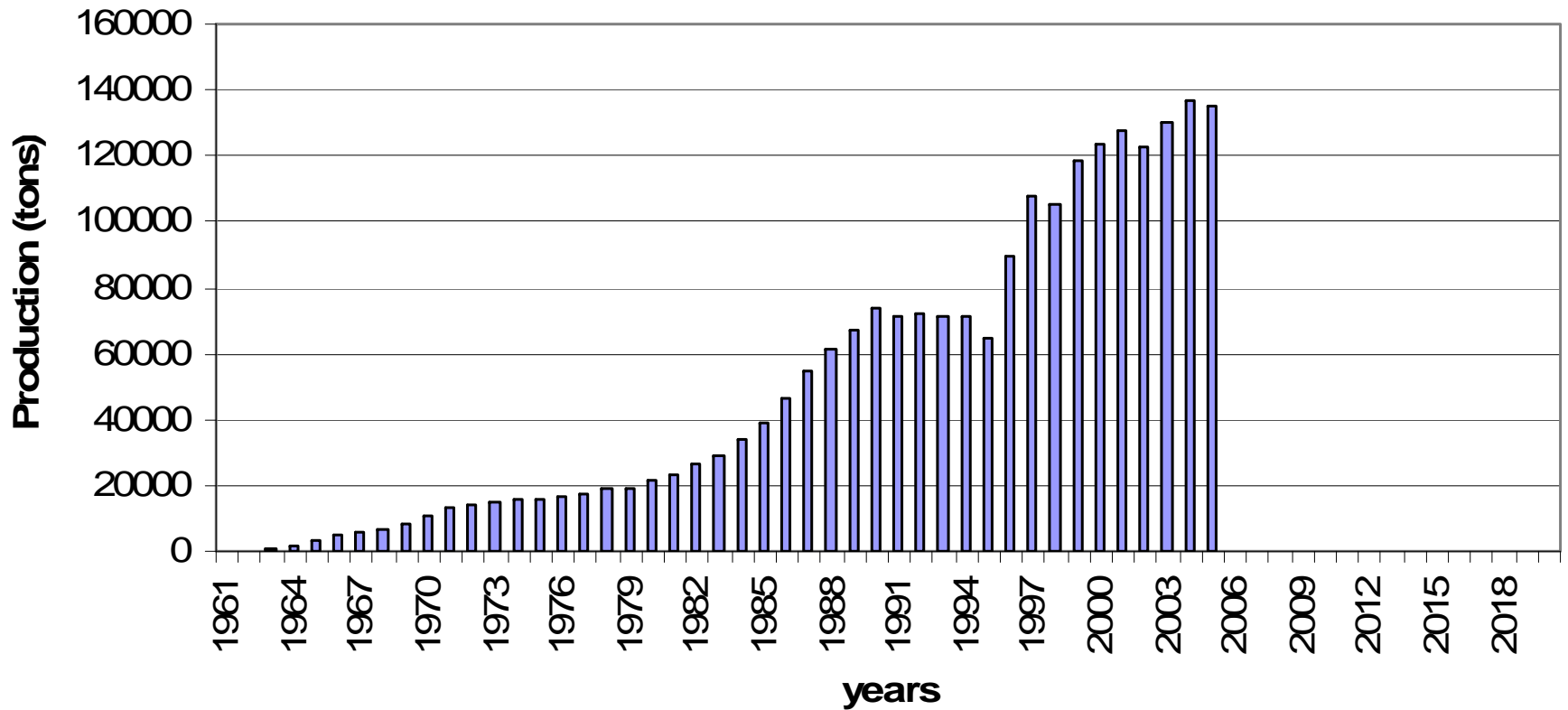
## Ratio de Production Cacao/café et Prix relatif Cacao/café en Côte d'Ivoire. 1972/73 à 2002/03



# « Rubber makes you as a civil servant »

(presented at WCF, Washington, Oct 2006)

**Production of natural rubber in Côte d'Ivoire**



### 3. Illustration of Ecological changes as Pushing factors towards higher or lower competitiveness







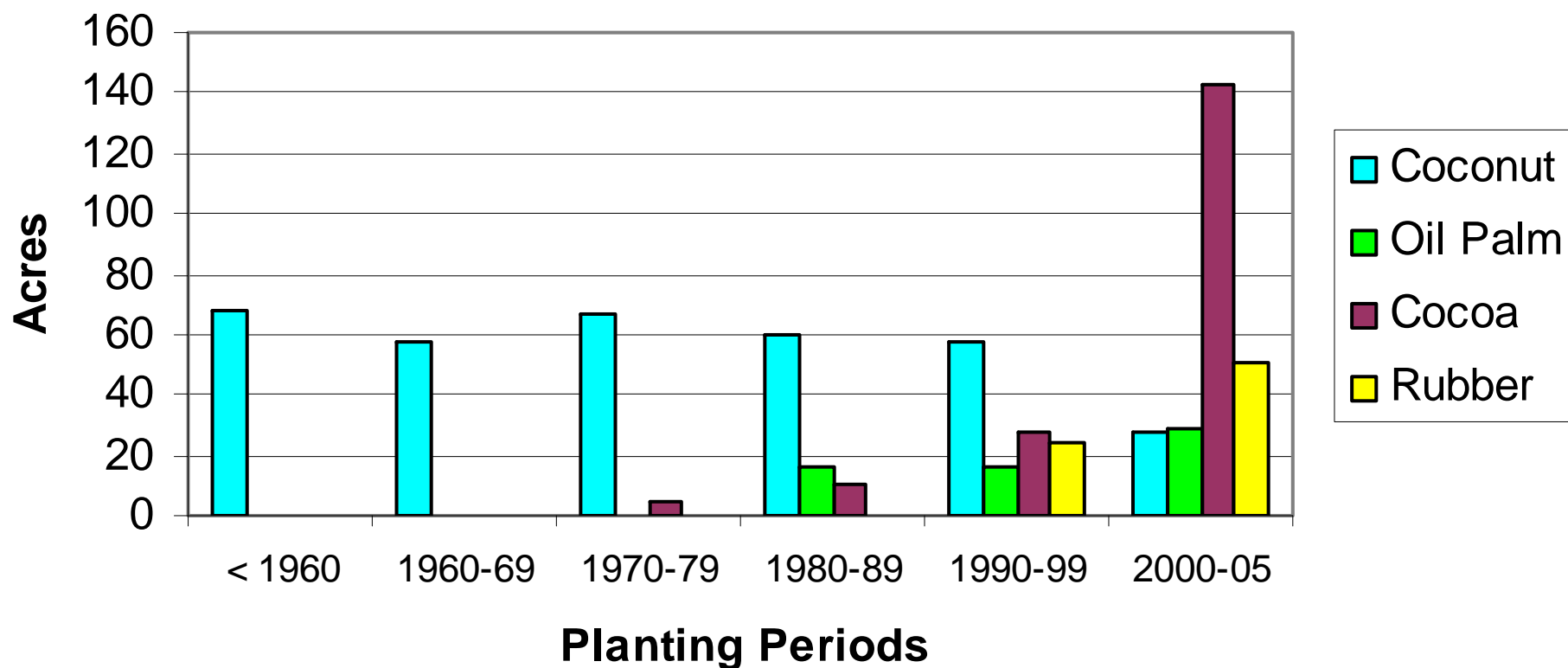




March 2005

# Planting and cocoa hybrid adoption

## Axim-Asasetre area. Western region, Ghana



On the opposite, the biological/ecological change also brings cocoa to a dangerous point



















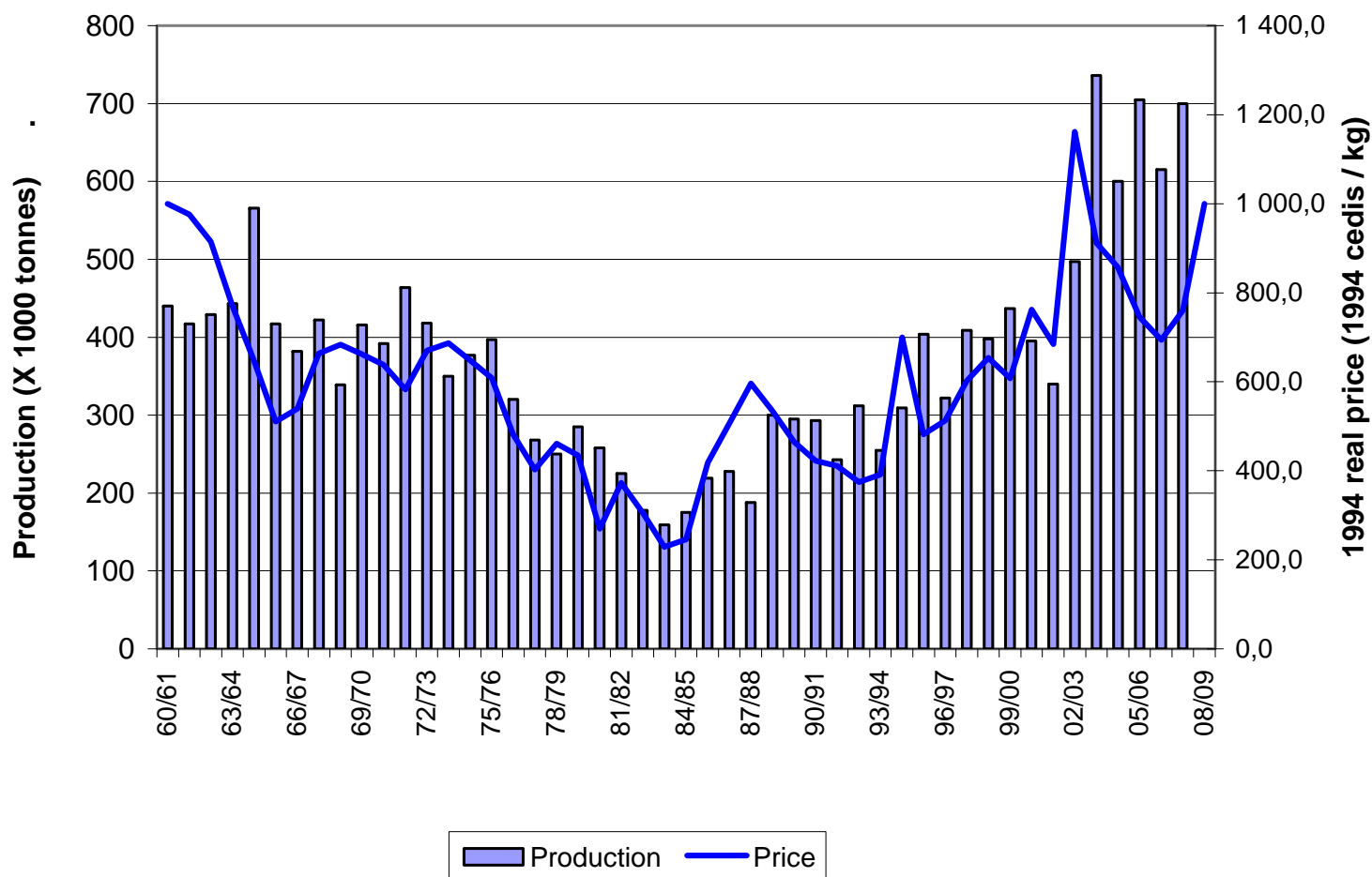
# From Ecological change to a change of tree

## The cocoa/oil palm showcase: Kade, Eastern region of Ghana

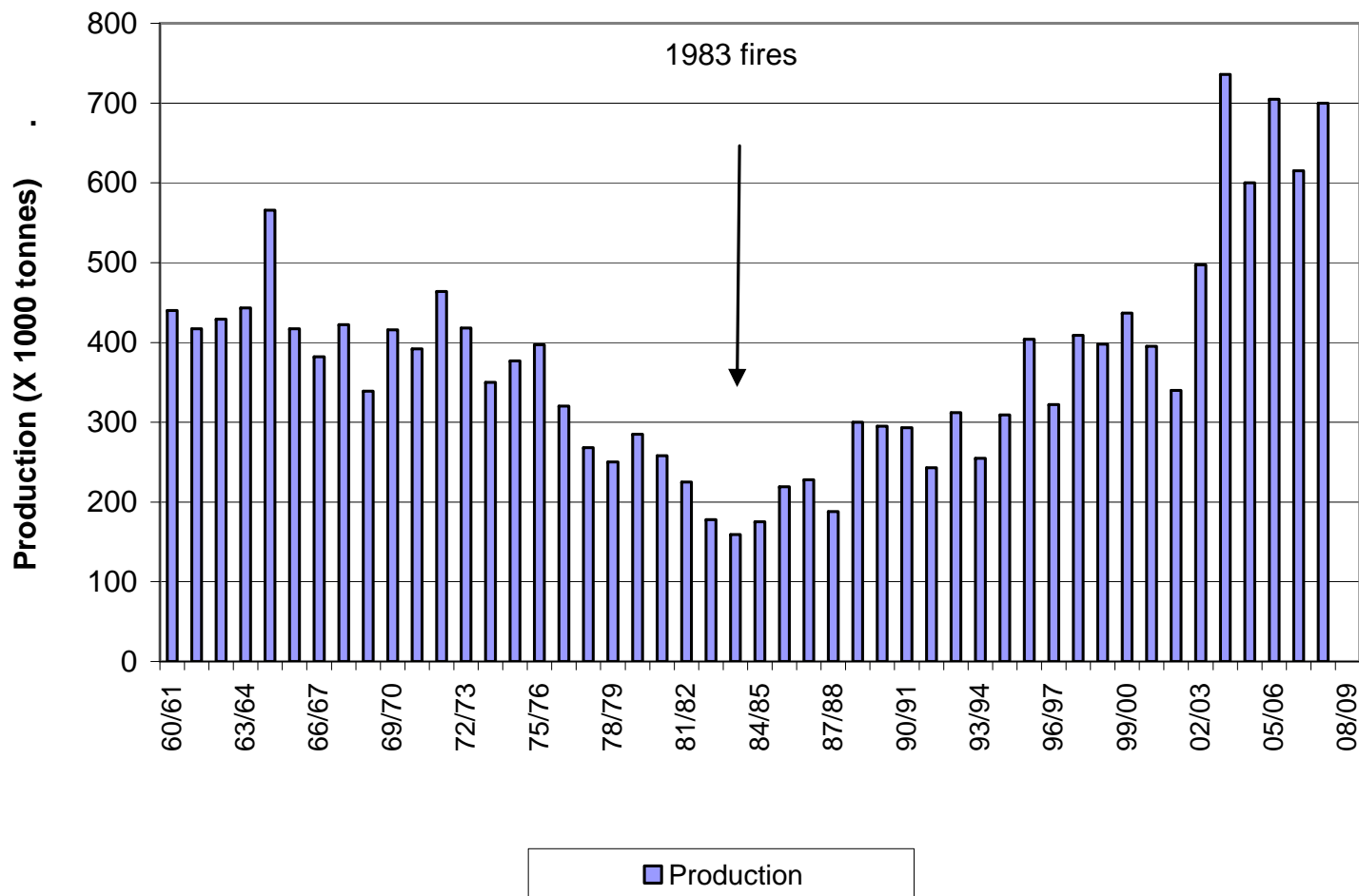
	Cocoa farmers	
	who diversify cocoa + oil palm	who do not diversify cocoa only
Several hectares of cocoa <b>destroyed by fire</b>	100%	0%
<b>No fire</b> in their cocoa farm	44%	56%

#### 4. Illustration of the Interacting Economic and Ecological changes

## Cocoa. Production and real producer price in Ghana. 1960-2008

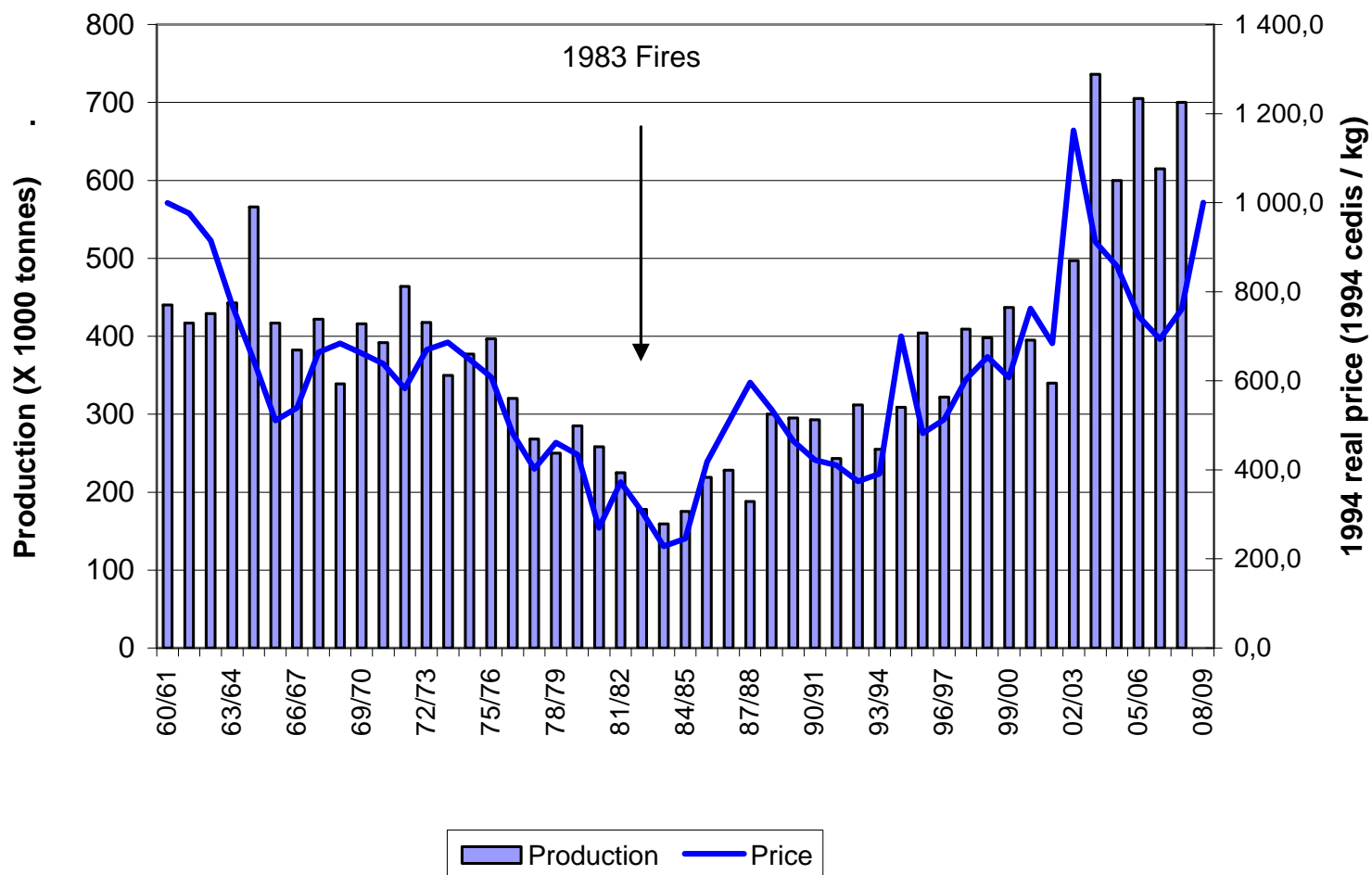


## Cocoa. Production and ecological change in Ghana. 1960-2008





## Cocoa. Production and real producer price in Ghana. 1960-2008



#### 4. Illustration of Pushing factors: social/institutional changes

1. 18th century - Venezuela

Sugar cane estates : slaves are freed

This liberates labour and energy to generate a smallholder cocoa sector

2. 20<sup>th</sup> century – Eastern Indonesia: Sulawesi

From the DI/TII rebellion in the 1950s to the peace agreement in the 1960S and the cocoa boom in the 1970s

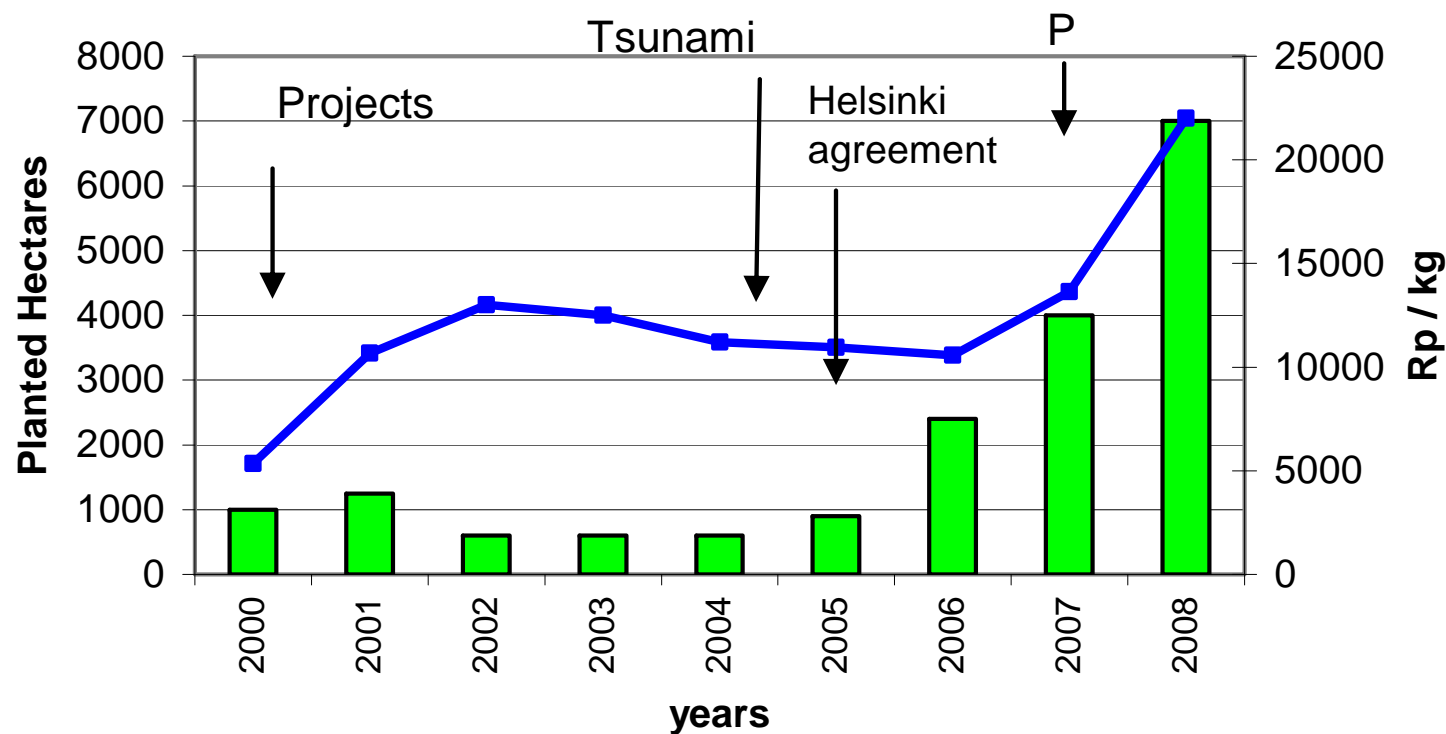
A network to spread information and knowledge about cocoa  
..and about remote fertile places

3. 21th century – Western Indonesia: Aceh

From the GAM rebellion in the 1970s to the Tsunami in 2004, the Helsinki peace agreement in 2005 and the expected cocoa boom in the 2010s

## Cocoa adoption, price and peace in Aceh

### Provisonal estimate of the trend



Back to the cocoa belt of Soubre:

Cocoa belt until when?

Ageing factors, inter-generational and social conflicts,  
policy difficulties, and economic alternatives



## 5. Food crops

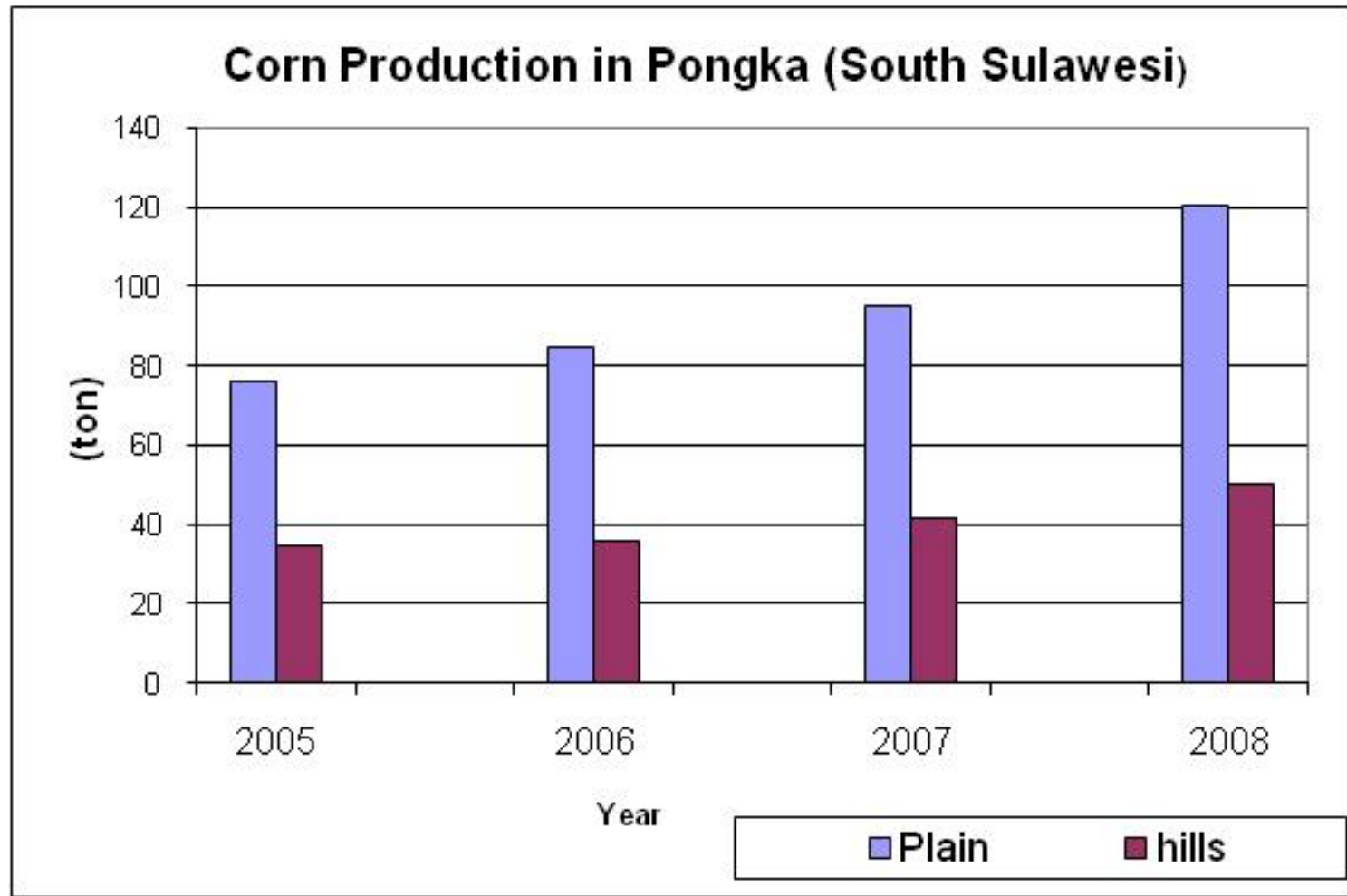
opportunities and constraints

Complementary aspects and competition

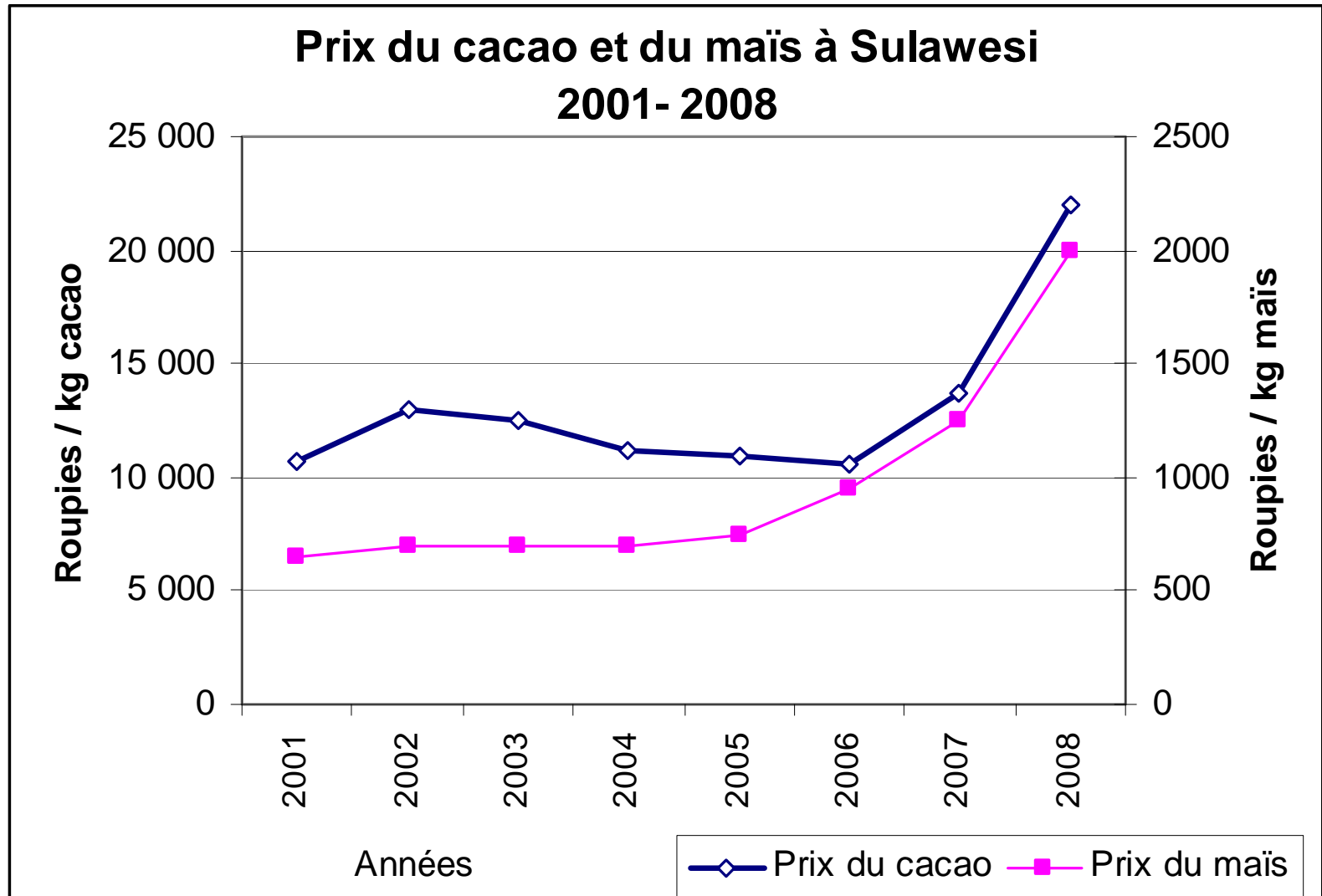




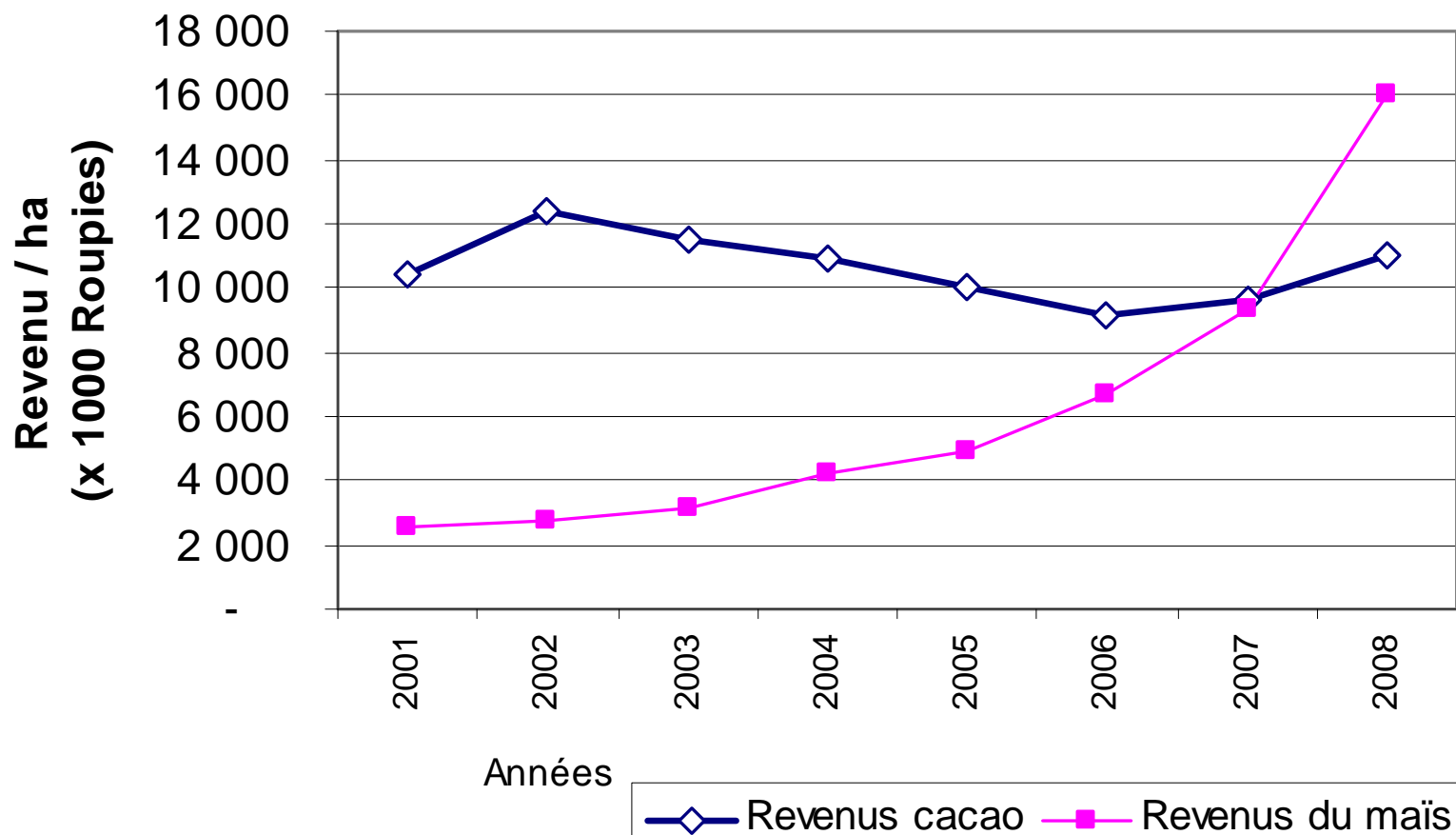
## Sulawesi cocoa smallholders' capacity to respond the rocketing price of maize



# Comparative prices of cocoa and maize do not explain much



## Revenus par hectare du cacao et du maïs 2001-2008



## Pourquoi cette réactivité sur le maïs?

- Une taille de la famille plus réduite en Indonésie favorise la commercialisation de surplus
- Une demande interne forte
- Changement biologique (maladies/dégâts du cacaoyer) et revenus relatifs
- Progrès technique: hybrides, engrais et machines
- Un réseau de commerçants bugis.
- Crédit et transactions assurées par le réseau de commerçants
  - Hybrides
  - Engrais



One key of that Impressive capacity of Cocoa smallholders to respond to the rocketing price of maize: Hybrids made available to farmers through a network of middlemen







Food crop competing with cocoa  
or complementary to cocoa?

Maize and cocoa replanting in Sulawesi  
A promising process

Cocoa farmers in Noling who started to cut down cocoa  
and replant with selected planting material

57% of them say that they would have done it  
without the maize revenues  
but acknowledge that the maize opportunity  
encouraged them

43% state that they would have not done it  
without the maize opportunity

Some potential 'lessons' in terms of food policy and cocoa replanting in West-Africa ??



## **Migrations and innovations : Herbicides.**

### **The Soubré showcase**

Adoption of herbicides = 2004

Land renting contract = 1990s

Two indicators of a tentative increase of food crop production,  
but mostly for self-consumption

- labour saving technology
- kind of 'fertilizer'

### **Adoption and use of herbicides on food crops in Soubré**

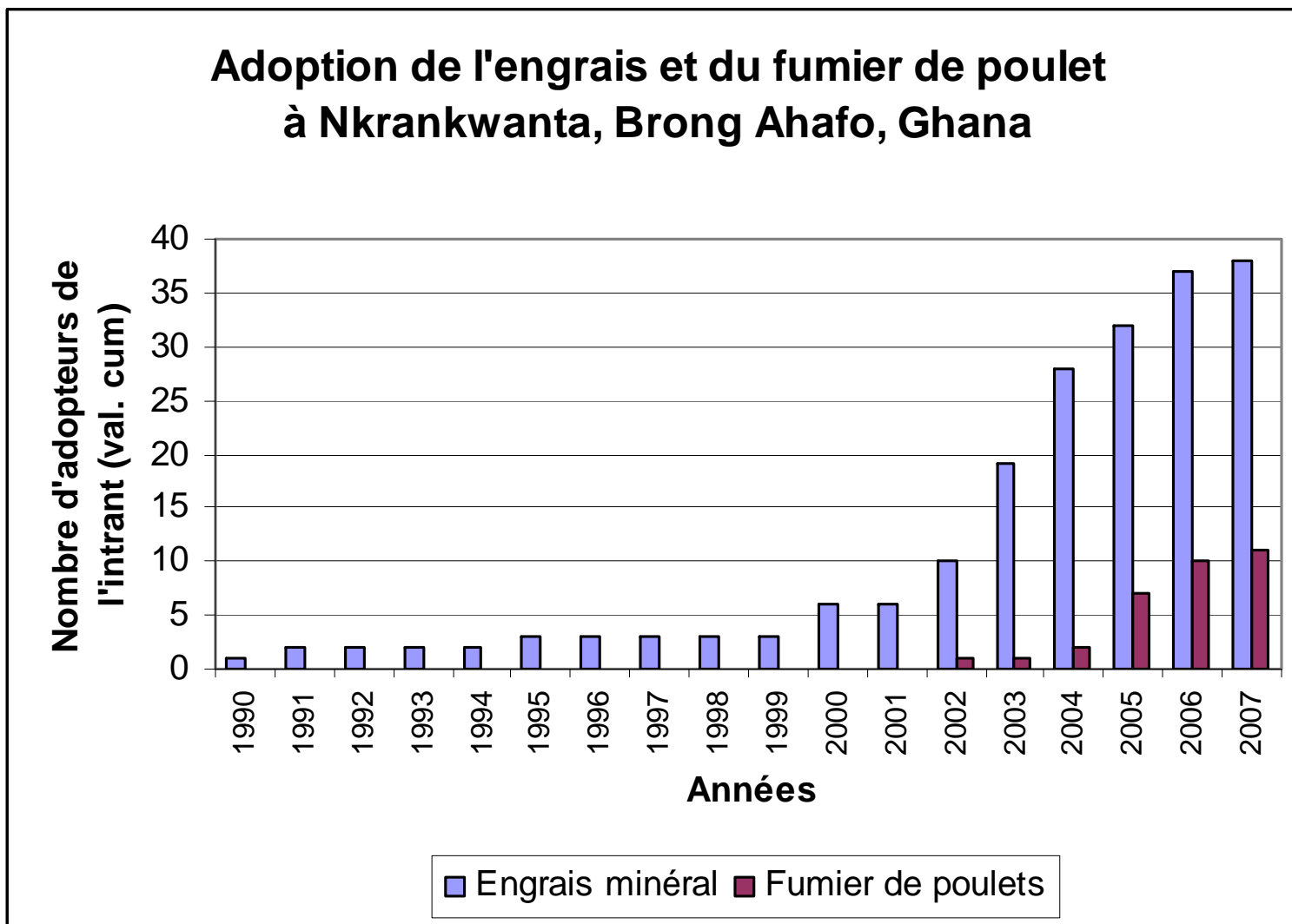
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Own land reserve	1 034	2 010	3 713	3 641
<b>rented land</b>	1 070	1 001	1 719	2 389
Total	2 103	3 011	5 432	6 030

Sources: CIRAD survey, 2004-2008.



**Migrations and innovations** : A beginning of organic fertilizer adoption: chicken dump  
 +- 2 to 3% of cocoa farms in Côte d'Ivoire and Ghana

(spread of information about its efficiency ... in home villages)



# Conclusion: A non negligible risk of cocoa decline in some African countries

## Top priorities

- Seriously increase the cocoa **Producer price in West-Africa**. This is economically and socially crucial
- **Replanting** and **fertilization**, in interaction with
  - **food crops** and food crop markets
  - Labour saving strategies
- Accompany Farmers' **diversification** strategies but taking in account the risk of re-conversion

